

Algebra Project #1: Real Numbers. Due: Midnight, Tuesday, Oct. 5, 2010. Points: 100

Create a presentation using Google Present that is at least 12 slides long. You will pick **some** of the questions below. (These questions are a guide; you do not need to answer all of them, but you need to pick some from each category.) Use Google to find the answers as best you can. **Make sure you cite your sources** on a final Works Cited slide (that would be slide 13) and wikipedia is not an academically valid source for this assignment. To get more info on MLA citations see <http://owl.english.purdue.edu/owl/resource/557/01/>. Two good resources for creating a citation are <http://www.calvin.edu/library/knightcite/> or <http://www.easybib.com/>.

Where did mathematics come from? Who thought up all the rules of algebra? Why did they think up these rules? Could they have been different? Some of you may have thought of these questions before, and others may never have thought twice about it. However, understanding mathematics is more than just doing the problem. We must understand why these problems came about in the first place.

Category: Natural Numbers

1. Define. Be sure to explain exactly what they are and what they aren't. Give examples.
2. What is their earliest known date of use?
3. What groups of people were using them? Why did they start using them? Give 3 early uses for natural numbers.
4. What did numbers look like at this time? Give an example of at least 3 different versions of natural numbers being used.

Category: Zero (remember Zero is added to Natural Numbers to get Whole Numbers)

1. Define. Be sure to include a couple different definitions of zero. Which one is the right definition?
2. What is its earliest known date of use?
3. What groups of people were using it first? Why did they start using it? Give 3 early uses for zero.
4. Why are there so many controversies surrounding this number? Is zero the same thing as nothing?
5. Who came up with the name zero?
6. What did zero start to look like at first? Who came up with its first known shape? Why did it become an oval?
7. Why don't we have a year zero??
8. Explain $0 + 0$, $0 - 0$, 0×0 , and $0 \div 0$. Are they all possible? Why or why not?

Category: Negative Numbers (remember Negative Numbers are added to Whole Numbers to get Integers)

1. Define. Give examples.
2. What is their earliest known date of use?
3. What groups of people were using them? Why did they start using them? Give 3 early uses for negative numbers.
4. What did negative numbers look like at first? What color were they written in? Why?
5. Why were they first seen as evil or from the devil?
6. Why is the product of two negative numbers positive? Can you think of any real world applications or situations where this would happen?

Category: Rational Numbers

1. Define. Give examples.
2. What is their earliest known date of use?
3. What groups of people were using them first?
4. How does decimal expansion fit in with Rational Numbers?

Category: Irrational Numbers

1. Define. Give examples.
2. What is their earliest known date of use?
3. What groups of people were using them first?
4. Are most real numbers rational or irrational? Explain why.

Category: Big Questions

1. Why is it important to learn the history behind the mathematics we learn? Do you think this is something God would want us to do? Why?
2. How can we see God's divine plan in the way and timing that mathematicians discovered different number systems? Has any of this surprised you? Will you ever look at mathematics the same way again?
3. Are numbers created or discovered by these mathematicians?
4. If God created numbers, how could he trust us with such a large task as discovering the numbers He created? Did he know if we could do it? If he knew we could do it, did he know how much our lives would change?